

The diagram illustrates the regulatory pathways of Th1 and Th2 cells in allergic responses. Th1 cells inhibit the production of IL-10, which in turn inhibits the proliferation of Th2 cells. Th1 cells also produce IFN- γ , leading to macrophage activation. Th2 cells produce IL-4 and IL-5, which promote the differentiation of B cells into antibody-secreting cells (including IgE) and mast cells, and also lead to eosinophil activation. IL-10 also inhibits the production of IL-4 and IL-5.

FIGURE 2

MRGGRGAPFWLWPLPKLALLPLLWVLFQRTRPQGSAGPLQCYGVGPLGDLNCSWEPLGD
LGAPSELHLQSQKYRSNKTQTVAVAAGRSWVAIPREQLTMSDKLLVWGTKAGQPLWPPV
FVNLETQMKPNAPRLGPDVDFSEDDPLEATVHWAPPTWPSHKVLICQFHYRRCQEAAWT
LLEPELKTIPLTPVEIQDLELATGYKVYGRCRMEEKEDLWGEWSPILSFQTPPSAPKDV
WVSGNLCGTPGGEEPLLLWKAPGPCVQVSYKVFVWVGGRELSPEGITCCCSLIPSGAEW
ARVSAVNATSWEPLTNLSLVCLDSASAPRSVAVSSIAGSTELLVTWQPGPGEPLHVVD
WARDGDPLEKLNWVRLPPGNLSALLPGNFTVGVPIRITVTAVSASGLASASSVWGFREE
LAPLVGPTLWRLQDAPPGTPAIAWGEVPRHQLRGHLTHYTLCAQSGTSPSVCNMVSGNT
QSVTLPLDLPWGPCELWVTASTIAGQGPPGPILRLHLPDNTLRWKVLPILFLWGLFLLG
CGLSLATSGRCYHLRHKVLPRVWWEKVPDPANSSSGQPHMEQVPEAQPLGDLPILEVEE
MEPPPVMESSQPAQATAPLDSGYEKHFLPTPEELGLLGPPRPQVLA

FIGURE 3

MNRLRVARLTPLELLLSLMSLLLGTRPHGSPGPLQCYSVGPLGILNCSWEPLGDLETPPV
LYHQSQKYHPNRVWEVKVPSKQSWVTIPREQFTMADKLLIWGTQKGRPLWSSSVNLETQ
MKPDTPQIFSQVDISEEATLEATVQWAPPVWPPQKALTCQFRYKECQAEAWTRLEPQLKT
DGLTPVEMQNLEPGTCYQVSGRCQVENGYPWGEWSSPLSFQTPFLDPEDVWVSGTVCETS
GKRAALLVWKDPRPCVQVTYTVWFGAGDITTTQEEVPCKSPVPAWMEWAVVSPGNSTSW
VPPTNLSLVCLAPESAPCDVGVSADGSPGIKVTWKQGTRKPLEYVVDWAQDGDSLDKLN
WTRLPPGNLSTLLPGEFKGGVPYRITVTAVYSGGLAAAPSVWGFREELVPLAGPAVWRLP
DDPPGTPVVAWGEVPRHQLRGQATHYTFCIQSRGLSTVCRNVSSQTQTATLPNLHSGSFK
LWVTVSTVAGQGPPGPDLSLHLPDNRIRWKALPWFLSLWGLLLMGCGLSLASTRCLQARC
LHWRHKLLPQWIWERVPDPANSNSGQPYIKEVSLPQPPKDGPILEVVEVELQPVVESPKA
SAPIYSGYEKHFLLPTPEELGLLV

FIGURE 4

h-TCCR 1 MRGGRGGPFWLWFI PKIALIPLWVIFQRTRE GSA GPLOCY VGPLG TI
m-TCCR 1 - - - - - MNRLRVARI THF ELI LSI MSILLQTRF HGS FGPLOCY VGPLG TI

h-TCCR 51 NCSWEPLGDI GARSEIHIQSOKYRSNKTQTVA AAGRSWY AIPREQITNS
m-TCCR 46 NCSWEPLGDI ETB FVIYHQSOKYHFN RVWEV KVP SKQSWY TIPREQITNA

h-TCCR 101 DKLLVWGT KACQPLWPHV FVNLETQMKFNARLGPDVIFSEDDHLEATVH
m-TCCR 96 DKLLIWGT QKGRPLWSSV FVNLETQMKFDTFQIFSQVITISEATLEATVQ

h-TCCR 151 WAPFTWFSHKVLIHCOHRYRCC EAWTLLEELKTIPLTPVETIQILELAT
m-TCCR 146 WAPFVWFPQKALTCOFRYKECC EAWTRLEPQLKT DGLTPVEMQNLEPGLT

h-TCCR 201 QYKVVYGRCRM EKEEDIWGEWSPLLSFQTFPSAR KDVWVSCNIQCETFGGEE
m-TCCR 196 QYQVSGRCQVENGYF WGEWSPLLSFQTFFLDEEDVWVSCTVGETSGKRA

h-TCCR 251 FLILWKAFCPCVQVSYK VWFVWCGRELSFEGITCCQSLIFSGAEWARVSA
m-TCCR 245 ALIVWKA FRCPCVQVTVWFVWCGRELSFEGITCCQSLIFSGAEWARVSP

h-TCCR 301 VNATSWEPITNLISLVCLDSASARSAVSS IAGSTELLVTQHCPGFPLR
m-TCCR 295 QNSTSWEPITNLISLVCLAPESAFCDVGVSSADGSPGIKVTWKCTRKPLR

h-TCCR 351 HVVDWAR DGDHFEKLNWVRLPPGNLS ALLPQNTVGVPRITVTAV SASG
m-TCCR 345 YVVDWAQ DGDSDLDKLNWVRLPPGNLS TLLPGEFKG VGVPRITVTAV YSGG

h-TCCR 401 LASASVWGFREELAFPLVSPITLWRLQDAPPGTFAI AWGEVPRHQLRQHLT
m-TCCR 395 LA AAPSVWGFREELVPLASPAVWRLPIDPPGTPVV AWGEVPRHQLRQAT

h-TCCR 451 HYTLCAQS GTSPSVQMNVS GNTQSVTLRDIIPWCPCELWVTAST IAGQGPF
m-TCCR 445 HYTFCIQS RGLSTVCRNVS SQTCTATLENHSGSFKLWVT VSTVAGQGPF

h-TCCR 501 GPIRLRLHLPDNTLRWKVLPGLFPLWGLFLLGCGLSLATS - - - GRQYRLR
m-TCCR 495 GPDLSLHLPDNRIRWKALPWFLLSLWGLLLMCGGLSLASTRCLOARCLHWR

h-TCCR 547 HKVLPRLVWEKVPDPANSSSGQPHMEQVPEAF LGDLPILEVEEHMPPPV
m-TCCR 545 HKLLFQV IWEKVPDPANSSSGQFYIKEVSLFQFPKLPPILEVEEHMLQPV

Box 1

h-TCCR 597 MESOPACQTARLD SGYEKHFLPTPEELGLLGPPRPQVLA
m-TCCR 595 VES - - - PKASAPIYSGYEKHFLPTPEELGLLV

FIGURE 5

Fetal

Adult

Kidney
Liver
Lung
Brain
Heart

Sk. Muscle
Kidney
Pancreas

Heart
Brain
Placenta
Lung
Liver

PBLs
Colon
Sm. Int.
Ovary
Testis
Prostate
Thymus
Spleen

FIGURE 6

FIGURE 7A

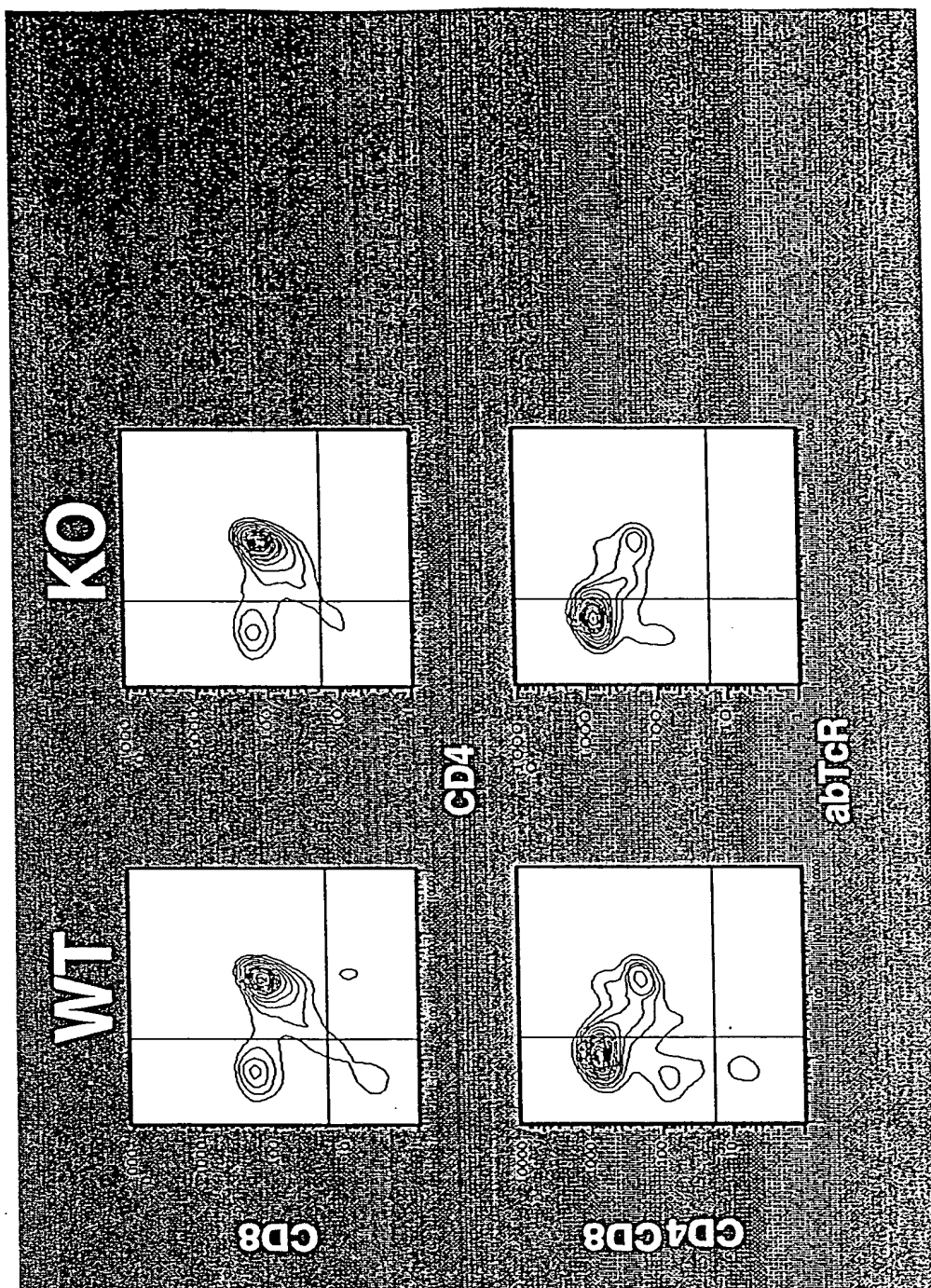
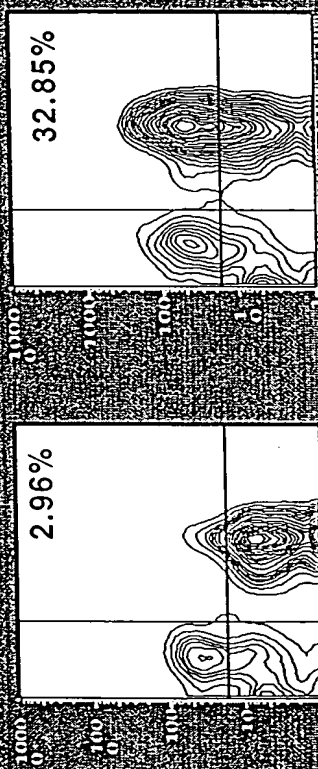
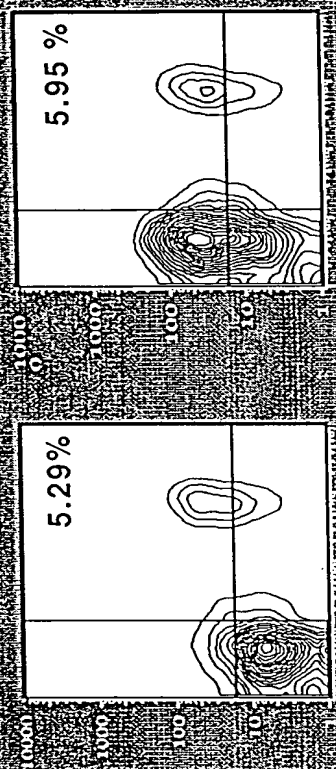


FIGURE 7B

CD2



CD20 FITC



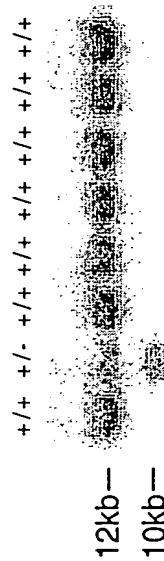
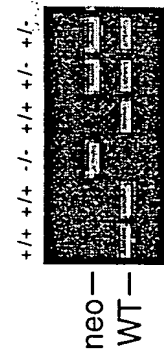
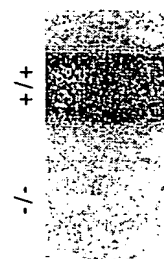
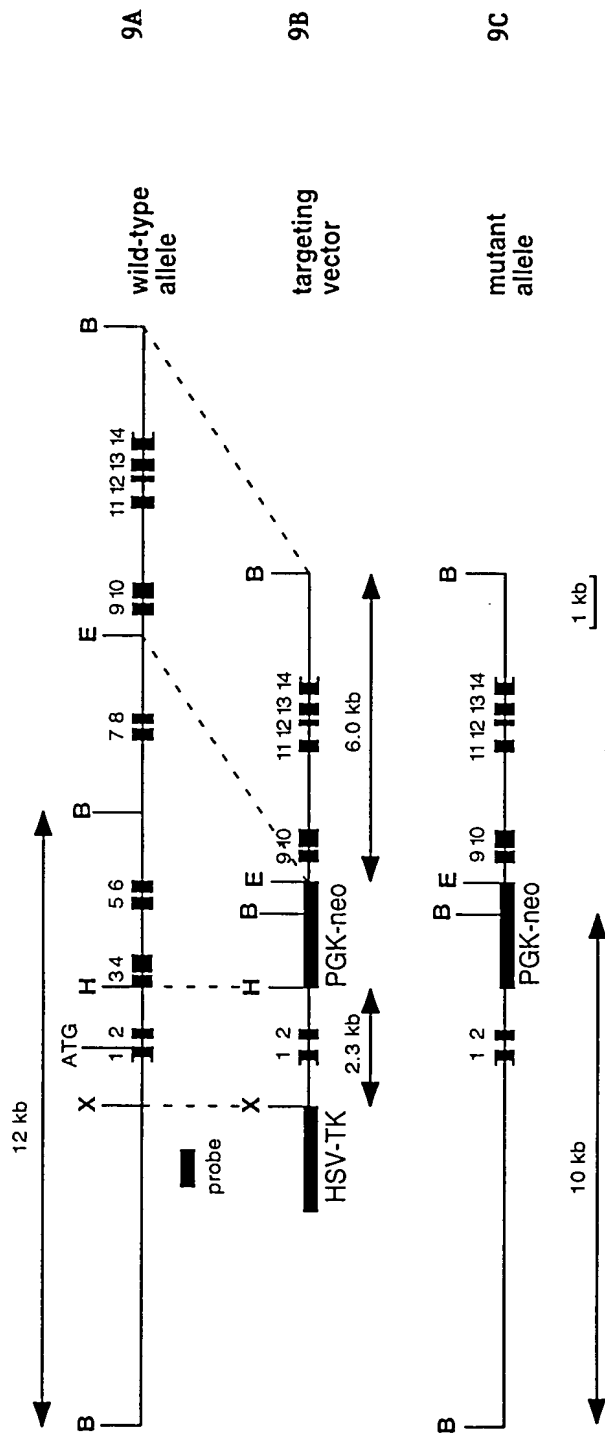




FIGURE 13

Antibody	WT (OD ₄₀₅)	KO (OD ₄₀₅)
IgG1	~2.8	~0.1
IgG2a	~0.1	~0.1

FIGURE 14

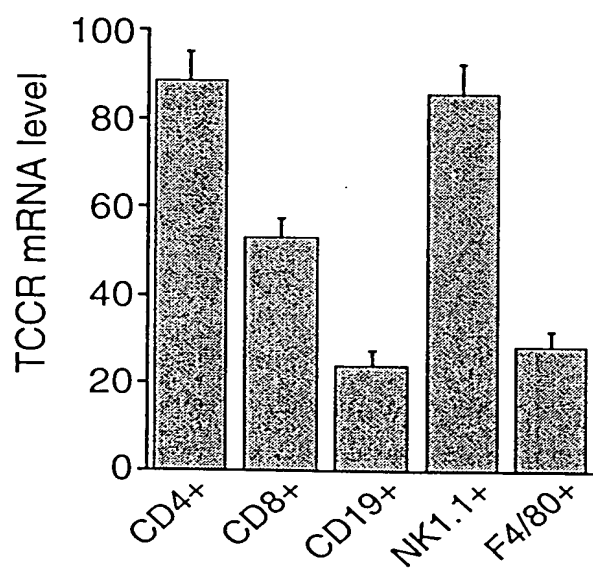


FIGURE 15A

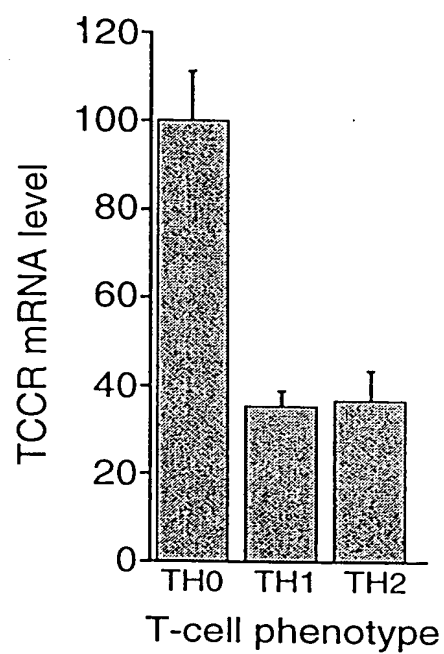


FIGURE 15B

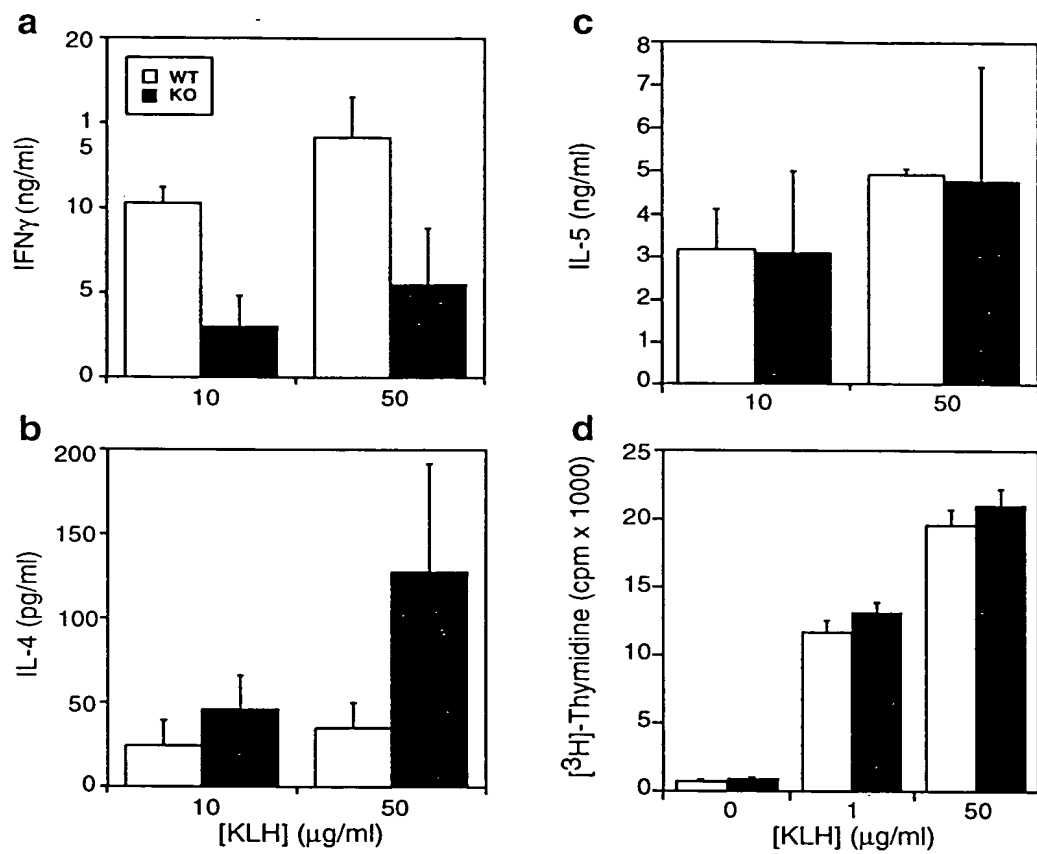


FIGURE 16

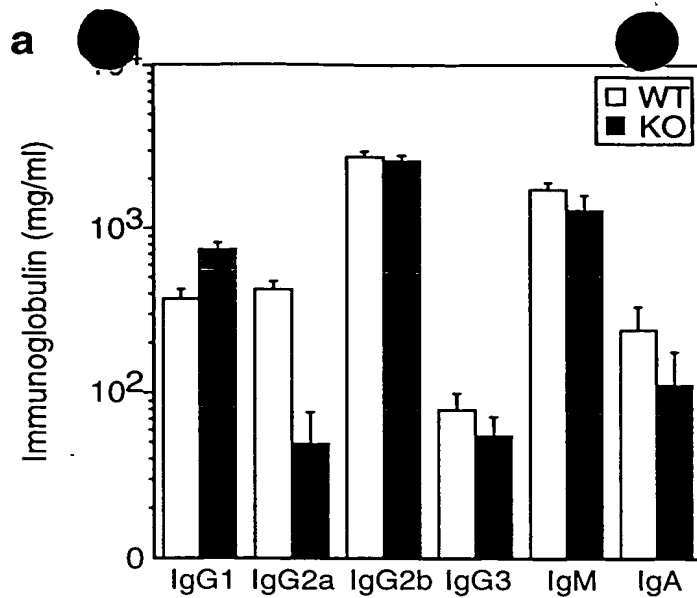
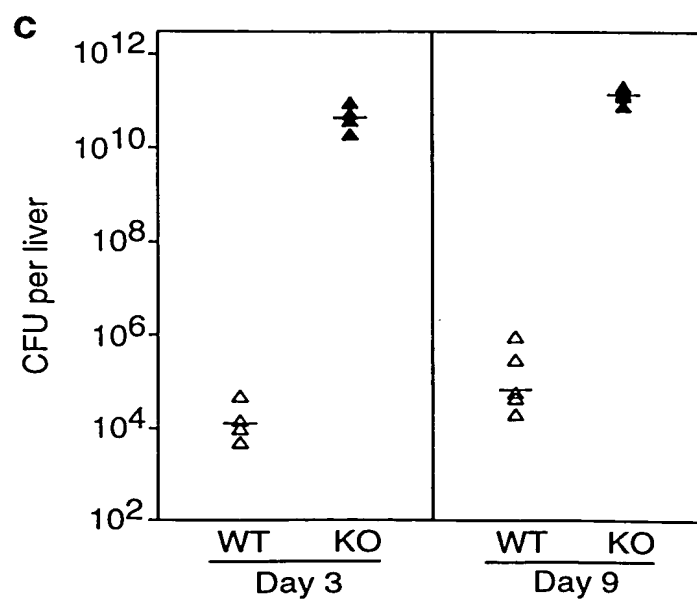
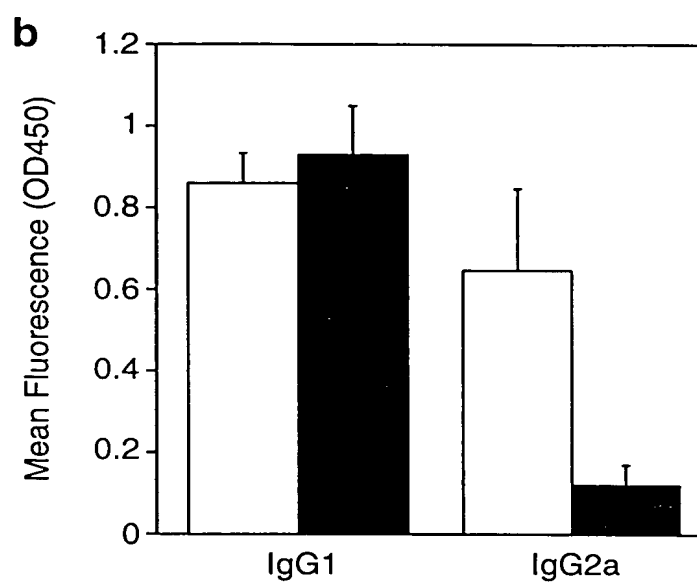


FIGURE 17



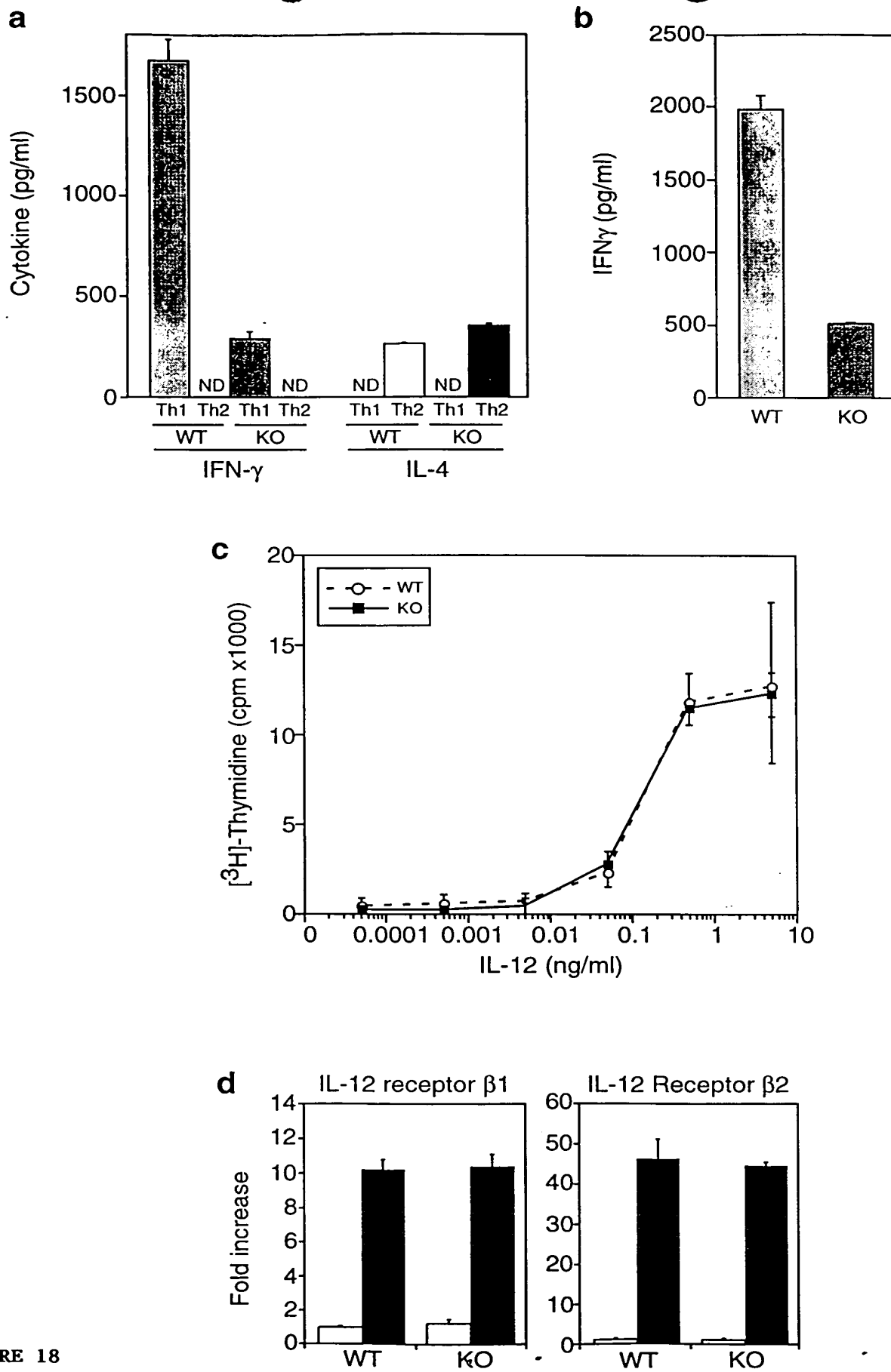


FIGURE 18

Figure 19

<u>Primer/Probe</u>	<u>Sequence</u>	<u>SEQ ID NO:</u>
mTCCR, sense, Taqman	TGGTCTCTCCTGGCAACAGC	5
mTCCR, as, Taqman	AGCCAAGCACACCAGAGACA	6
mTCCR, Taqman probe	CAGCTGGGTGCCTCCCACCAA	7
mRPL19, sense, Taqman	ATCCGCAAGCCTGTGACTGT	8
mRPL19, as, Taqman	TCGGGCCAGGGTGTTTTT	9
mRPL19, Taqman probe	TTCCCGGGCTCGTTGCCG	10
mIL12Rb1, sense, Taqman	TCGCGTCTCTGGGAAGCT	11
mIL12Rb1, as, Taqman	TTTAAGCCAATGTATCCGAGACTG	12
mIL12Rb1, Taqman probe	CGCCAGCGTCCTCCTCGTGG	13
mIL12Rb2, sense, Taqman	CAAGCATTTGCATCGCTATCA	14
mIL12Rb2, as, Taqman	AATGCCTTTTGCCGGAAGT	15
mIL12Rb2, Taqman probe	ACGAATTGAGAACGTGCCCACCGT	16